

REMARKS

Applicant requests favorable reconsideration of this application in view of the foregoing amendments and the following remarks. Of claims 1-5 that were pending in the application, claims 1 and 3-5 were rejected in the Office Action. Applicant greatly appreciates the indication of allowable subject matter in claim 2. In response to this positive indication, two of the three elements previously recited in claim 2 have added to claim 1 (and have correspondingly been removed from claim 2). As later explained in detail, Applicant believes that it was the recitation of these two elements that justified the Examiner's conclusion that claim 2 was allowable. Accordingly, Applicant asserts that claim 1 should now be in condition for allowance for at least the same reasons that justified the allowability of claim 2. Moreover, as claims 2-5 depend from claim 1, each of these dependent claims should also be in condition for allowance, without regard to the other patentable limitations recited therein. Accordingly, claims 1-5, each of which should be in condition for allowance, are respectfully resubmitted for further consideration.

1. Examiner's Request for Translation or Detailed Explanation of DE 198 18 649

On page 2 of the Office Action, the Examiner stated:

Applicant has submitted one piece of prior art so relevant to the examination of this application that the examiner is strongly requesting a translation of the reference or in lieu of that, a full detailed explanation, by applicant/counsel, of how the bypass valves 36 and 38 are controlled in DE 19818649. Given that this case is undergoing prosecution overseas the examiner believes that this information is in applicant's possession and its materiality is beyond question.

Further, on page 3 of the Office Action, the Examiner stated:

If applicant has received an office action rejecting claims similar to these, in any overseas prosecution, a translation of that office action is required to enable the current examiner to render a decision consistent with, or at least cognizant of, the thinking of these other overseas' [sic] examiners.

Contrary to the Examiner's belief, Applicant did not possess a translation or detailed explanation of DE 198 18 649 ("Dienhart"). However, in response to the Examiner's request for a translation or detailed explanation of Dienhart, Applicant has opted to oblige the Examiner by obtaining and concurrently submitting, by way of an Information Disclosure Statement ("IDS"), a complete translation of Dienhart except for the Abstract; a translation of Dienhart's Abstract was previously submitted. Applicant is also submitting a copy of an EP Office Action (dated May 17, 2005) in which the EP Examiner applied Dienhart.

2. Rejections of Claims 1 and 3-5

Under 35 U.S.C. § 103(a), the Examiner rejected: (a) claims 1, 3, 4 and 5 as allegedly being obvious in view of Dienhart; (b) claims 1 and 5 as allegedly being obvious when considering Dienhart in view of U.S. Patent No. 2,038,193 (“Parsons”); (c) claim 3 as being allegedly obvious when considering Dienhart in view of Parsons and further in view of either U.S. Patent No. 3,196,630 (“Barbier”) or U.S. Patent No. 3,872,682 (“Shook”); and (d) claim 4 as allegedly being obvious when considering Dienhart in view of Parsons and further in view of either U.S. Patent Application Publication No. 2001/0052238 (“Burk”) or Shook.

For the following reasons, Applicant respectfully traverses each of these rejections.

As amended herein, claim 1 (*i.e.*, the claim from which claims 3-5 depend) recites an air conditioning apparatus for a vehicle. This air conditioning apparatus includes, among other possible things (*italic emphasis added*):

- a coolant cycle including, in order, a compressor for compressing a coolant, an outdoor-side coolant heat exchanger for exchanging heat of the coolant compressed by the compressor with ambient air, an expansion unit for expanding the coolant after heat exchange at the outdoor-side coolant heat exchanger, an indoor-side coolant heat exchanger for exchanging heat of the coolant expanded by the expansion unit with air conditioning wind supplied into a vehicle cabin, and a piping that returns the cycle to the compressor, wherein the coolant heat exchangers and the expansion unit are in communication with each other;
- a water-coolant heat exchanger arranged between the compressor and the outdoor-side coolant heat exchanger to exchange heat of the coolant discharged from the compressor with cooling water of a power source for driving the vehicle;
- a flow-path switching unit for selectively introducing the coolant discharged from the compressor to either a flow path for the water-coolant heat exchanger or another flow path to avoid the water-coolant heat exchanger;
- a detection unit for detecting a temperature of the cooling water flowing into the power source;
- a control unit for controlling the flow-path switching unit such that the coolant discharged from the compressor either is introduced to the water-coolant heat exchanger when the temperature of the cooling water is equal to or less than a predetermined temperature or avoids the water-coolant heat exchanger when the temperature of the cooling water is more than the predetermined temperature;
- a heating expansion unit arranged between the water-coolant heat exchanger and the outdoor-side coolant heat exchanger to expand the coolant supplied to the outdoor-side coolant heat exchanger; and*
- an expansion switching unit for selectively introducing the coolant supplied into the outdoor-side coolant heat exchanger to either a flow path for the heating expansion unit or another flow path to avoid the heating expansion unit.*

As hereafter explained, no combination of Dienhart, Parsons, Barbier, Shook, and/or Burk teaches or suggests such an air conditioning apparatus.

The embodiments of the present invention shown in Figures 1 and 3 of the instant application include a compressor 1, a water-coolant heat exchanger 11, an outdoor-side coolant heat exchanger 2, an expansion unit 3, and an indoor-side coolant heat exchanger 4. These application elements may be respectively analogized, as asserted by the Examiner, to Dienhart's compressor 20, heat exchanger 22, condenser 14, expansion valve 16, and evaporator 18. The instant application discloses two-flow paths 10, 16 between the water-coolant heat exchanger 11 and the outdoor-side coolant heat exchanger 2. Specifically, the embodiments of the instant invention provide, as above-italicized, a heating expansion switching unit 23 that directs the flow of coolant either along a flow path 10 in which the coolant passes through a heating expansion unit 22 (also above-italicized) or a bypass flow path 16 in which the coolant avoids the heating expansion unit 22. In contrast, the flow path between Dienhart's heat exchanger 22 (*i.e.*, water-coolant heat exchanger) and condenser 14 (*i.e.*, outdoor-side coolant heat exchanger 2) is limited to one path through the valve 38. As a result, Dienhart fails to teach or suggest at least the above-italicized limitations of claim 1.

Parsons teaches a pump 12, a water heater 8, a car heater 7, and an engine radiator 8. Even if these components were respectively analogized to the compressor, water-coolant heat exchanger, indoor-side coolant heat exchanger, and outdoor-side coolant heat exchanger recited in claim 1, Parsons could not be used to cure the aforementioned deficiencies of Dienhart for at least two reasons. First, in Parsons, the coolant flows from the water heater 8 (*i.e.*, water-coolant heat exchanger) directly to the car heater 7 (*i.e.*, indoor-side coolant heat exchanger), whereas claim 1 recites that the coolant flows from the water-coolant heat exchanger to the outdoor-side coolant heat exchanger and subsequently to the indoor-side coolant heat exchanger. Second, as Parsons' coolant does not flow from the water heater 8 (*i.e.*, water-coolant heat exchanger) to the engine radiator 8 (*i.e.*, outdoor-side coolant heat exchanger) Parsons also fails to teach or suggest an expansion unit (and expansion switching unit) provided between the water heater 8 (*i.e.*, water-coolant heat exchanger) and the engine radiator 8 (*i.e.*, outdoor-side coolant heat exchanger), as above-italicized in claim 1. Accordingly, Parsons can not be used to cure the aforementioned deficiencies of Dienhart.

Shook teaches, in order, a compressor 11, a condenser 12 (which may be analogized to the outdoor-side coolant heat exchanger recited in claim 1), an expansion valve 13 (which may be analogized to the expansion unit recited in claim 1), and an evaporator 15 (which may be analogized to the indoor-side coolant heat exchanger recited in claim 1). Shook, however,

fails to teach or suggest a water-coolant heat exchanger provided between the compressor 11 and the condenser 12. Accordingly, Shook also fails to cure the aforementioned deficiencies of Dienhart.

Barbier teaches, in order, a compressor 10, a condenser 12 (which may be analogized to the outdoor-side coolant heat exchanger recited in claim 1), an expansion valve 14 (which may be analogized to the expansion unit recited in claim 1), and an evaporator 16 (which may be analogized to the indoor-side coolant heat exchanger recited in claim 1). Barbier, however, fails to teach or suggest a water-coolant heat exchanger provided between the compressor 10 and the condenser 12. Accordingly, Barbier also fails to cure the aforementioned deficiencies of Dienhart.

Burk teaches a compressor 1 and two condensers 2, 3. Similar to Shook and Barbier, however, Burk fails to teach or suggest a water-coolant heat exchanger provided between the compressor 1 and either of the condensers 2, 3. Accordingly, Burk also fails to cure the aforementioned deficiencies of Dienhart.

For at least the foregoing reasons, it is clear that none of Dienhart, Parsons, Shook, Barbier, and Burk teaches or suggests at least the above-italicized limitations of claim 1. Accordingly, no combination of Dienhart, Parsons, Shook, Barbier, and/or Burk can be used to reject claim 1, or any claim dependent thereon, under 35 U.S.C. § 103(a). Moreover, as claims 3-5 depend from claim 1, each of these dependent claims is also allowable over any combination of Dienhart, Parsons, Shook, Barbier, and/or Burk, without regard to the other patentable limitations recited therein. Accordingly, a withdrawal of the various § 103(a) rejections of claims 1 and 3-5 is both warranted and respectfully requested.

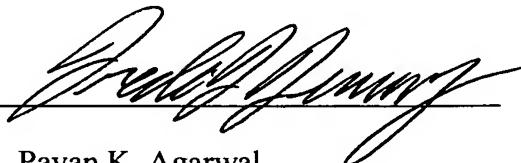
CONCLUSION

For the aforementioned reasons, claims 1-5 are now in condition for allowance. A Notice of Allowance at an early date is respectfully requested. The Examiner is invited to contact the undersigned if such communication would expedite the prosecution of the application.

Respectfully submitted,

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By



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THE COMMISSIONER IS HEREBY AUTHORIZED TO CHARGE ANY ADDITIONAL FEES WHICH MAY BE REQUIRED REGARDING THIS APPLICATION UNDER 37 C.F.R. §§ 1.16-1.17, OR CREDIT ANY OVERPAYMENT, TO DEPOSIT ACCOUNT NO. 19-0741. SHOULD NO PROPER PAYMENT BE ENCLOSED HEREWITH, AS BY A CHECK BEING IN THE WRONG AMOUNT, UNSIGNED, POST-DATED, OTHERWISE IMPROPER OR INFORMAL OR EVEN ENTIRELY MISSING, THE COMMISSIONER IS AUTHORIZED TO CHARGE THE UNPAID AMOUNT TO DEPOSIT ACCOUNT NO. 19-0741. IF ANY EXTENSIONS OF TIME ARE NEEDED FOR TIMELY ACCEPTANCE OF PAPERS SUBMITTED HEREWITH, APPLICANT HEREBY PETITIONS FOR SUCH EXTENSION UNDER 37 C.F.R. § 1.136 AND AUTHORIZES PAYMENT OF ANY SUCH EXTENSIONS FEES TO DEPOSIT ACCOUNT NO. 19-0741.